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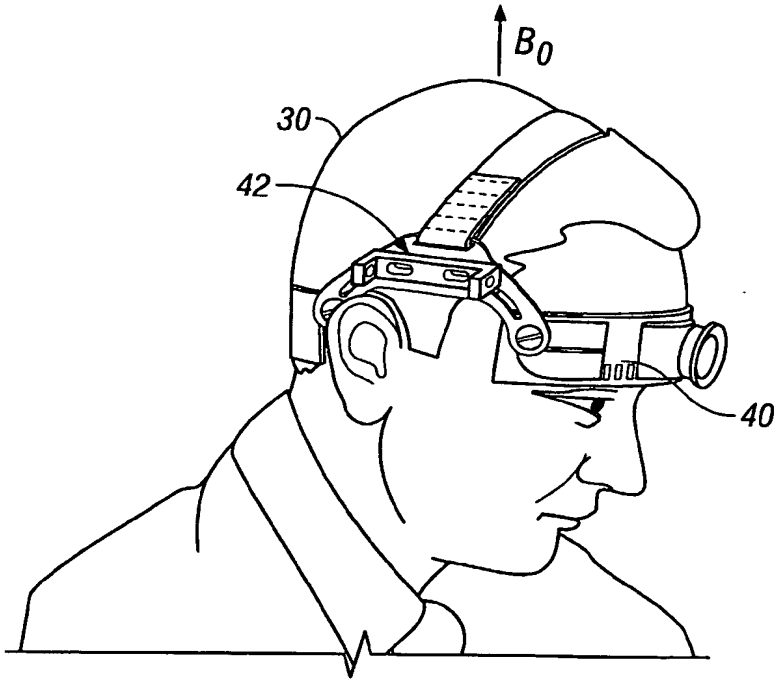
(54) Title: IN VIVO BRAIN ELASTICITY MEASUREMENT BY MAGNETIC RESONANCE ELASTOGRAPHY WITH VIBRATOR COIL



(57) Abstract: A vibrator coil (10) is applied to the skull (30) by adaptation of a commercially available transcranial Doppler monitoring harness (40) during MR applies mechanical waves in the acoustic waves through the skull to the brain. Utilizing magnetic resonance elastography (MRE), non-invasive estimation of tissue elastic properties in three dimensions occurs. The propagation of the acoustic waves through brain tissue, coupled to phase alteration of voxel isochromats in the presence of applies motion encoding magnetic field gradients allows measurements of brain elasticity.

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